

## CLAIMS

I claim:

- 1        1.    An illuminated retractable leash, comprising:  
2        a housing having a grip portion;  
3        a spring-based spool rotatably supported in said housing;  
4        an extendible roll of electroluminescent wire wound around  
5 the spool, the wire having a free end adapted for attachment to  
6 a pet collar; and  
7        a DC to AC power inverter, the electric output thereof  
8 selectively connected to one end of the electroluminescent wire.
- 1        2.    The illuminated retractable leash according to claim  
2 1, further comprising a DC input jack.
- 1        3.    The illuminated retractable leash according to claim  
2 1, further comprising a stop mechanism for engaging said spool  
3 and for blocking the extension or winding up of said  
4 electroluminescent wire about said spool.

1        4.    The illuminated retractable leash according to claim  
2 1, further comprising a printed circuit board disposed in said  
3 housing, said DC to AC power inverter mounted thereon.

1        5.    The illuminated retractable leash according to claim  
2 4, wherein said printed circuit board is centrally mounted to a  
3 lateral surface of said spool, whereby said printed circuit  
4 board rotates in conjunction with said spool.

1        6.    The illuminated retractable leash according to claim  
2 1, further comprising a battery holder capable of holding at  
3 least one battery, said battery holder having electrical leads  
4 selectively connected to said inverter.

1        7.    The illuminated retractable leash according to claim  
2 6, wherein said battery holder is disposed on said printed  
3 circuit board.

1        8.    The illuminated retractable leash according to claim  
2 1, wherein said spool is transparent and at least part of said  
3 housing is transparent.

1           9. The illuminated retractable leash according to claim  
2 1, further comprising a switch electrically connected to said  
3 inverter operative to apply power to said electroluminescent  
4 wire.

1           10. An illuminated retractable leash comprising;  
2 a housing;  
3 a spring-biased spool rotatably supported in said housing;  
4 an extendible roll of electroluminescent wire wound around  
5 said spool, the wire having a free end adapted for attachment to  
6 a pet collar;

7 a stop mechanism for engaging said spool and for blocking  
8 the extension or winding up of the electroluminescent wire about  
9 said spool;

10 a printed circuit board centrally mounted to a lateral  
11 surface of said spool, whereby said printed circuit board  
12 rotates in conjunction with said spool; and

13 a DC to AC inverter, the electric output thereof  
14 selectively connected to an end of the electro-luminescent wire.

1        11. The illuminated retractable leash according to claim  
2 10, further comprising a battery holder mounted to said printed  
3 circuit board, said battery holder having electrical leads  
4 selectively supplying power to said inverter.

1        12. The illuminated retractable leash according to claim  
2 10, wherein said spool and at least part of said housing is  
3 transparent.

1           13. An illuminated retractable leash comprising;  
2           a housing having a grip portion;  
3           a spring-biased spool rotatably supported in said housing,  
4           said spool having a pair of electrically conducting surfaces  
5           concentrically disposed on a lateral surface of said spool;  
6           an extendible roll of electroluminescent wire wound around  
7           said spool, said electroluminescent wire having at least two  
8           conductors, said conductors electrically connected to said pair  
9           of concentrically disposed conducting surfaces, said wire  
10          further having a free end adapted for attachment to a pet  
11          collar;  
12          a retractor mechanism whereby slack section of said wire  
13          can be taken up automatically by said spring-based spool when  
14          the maximum extension length of said wire is not being used;  
15          a pair of electric contacts mounted to said housing and  
16          positioned to make continuous electric contact with said pair of  
17          concentrically disposed conducting surfaces as the spool  
18          rotates;  
19          a printed circuit board disposed in said housing, said  
20          printed circuit board having a DC to AC power inverter, the

21 electric output thereof connected to said pair of housing  
22 mounted electric contacts; and

23 a battery holder disposed in said housing, said battery  
24 holder having electrical leads selectively supplying power to  
25 said inverter.

1 14. The illuminated retractable leash according to claim  
2 13, wherein said spool is transparent and at least part of said  
3 housing is transparent.